



CITY OF DURHAM | NORTH CAROLINA

Date: July 2, 2012

To: Thomas J. Bonfield, City Manager
Through: Theodore L. Voorhees, Deputy City Manager
From: Donald F. Greeley, Director, Water Management
Vicki P. Westbrook, Assistant Director, Water Management
Subject: Interlocal Agreement for Phase VII of the Triangle Area Water Supply Monitoring Project

Executive Summary

Since 1988, the City of Durham has participated with several other local jurisdictions to fund the Triangle Area Water Supply Monitoring Project ("Project" or TAWSMP). The Project has been managed through an interlocal agreement under the auspices of the Triangle J Council of Governments, with both the North Carolina Department of Environment and Natural Resources, Division of Water Quality (DENR/DWQ) and the United States Geological Survey (USGS) responsible for collecting, analyzing and reporting the data. By partnering with the USGS, the project has leveraged their forty-five percent match to expand monitoring areas and data collection.

The Project has collected and analyzed water quality samples from reservoirs and streams and collected continuous discharge records from streams in the study area for more almost 20 years. Along with data collected by DWQ and other studies conducted or supported by the City of Durham, this data provides a long-term comprehensive data base on the quality of many of the area's water supply reservoirs, rivers, and selected tributaries to those water supplies.

The participating jurisdictions have varied during the timeframe. The Project is now entering Phase VII; in addition to Durham, supporting partners include Chatham and Orange Counties, the Towns of Apex, Cary, and Hillsborough, the City of Durham, and the Orange Water and Sewer Authority (for the Towns of Carrboro and Chapel Hill). Phase VII of the project is effective July 1, 2012 through June 30, 2017. The City of Durham's annual cost for Phase VII is \$121,446.

Recommendation

The department recommends that the City Council authorize the City Manager to enter into the Interlocal Agreement for Phase VII of the Triangle Area Water Supply Monitoring Project with neighboring jurisdictions.

Background

Because of reliance on surface water for water supply and the potential impact of growth on the quality of the region's water supply sources, local governments in the region recognized that water quality monitoring was crucial to the protection of the Triangle Area's surface water resources. In 1988, a number of local governments in the six-county region, with assistance from the Triangle J Council of Governments, formed the Triangle Area Water Supply Monitoring Project to systematically evaluate the quality of several water supply sources in the region. With assistance from the USGS, the Project has collected and analyzed water quality samples from

reservoirs and streams and collected continuous discharge record from streams in the study area for more than 15 years. These data, along with data collected by DWQ and other studies conducted or supported by the City of Durham, form a long-term comprehensive data base on the quality of many of the area's water supply reservoirs, rivers, and selected tributaries to those water supplies.

In the last 20 years, concerns about water quality of the area's water supplies and the potential impacts of development on reservoir eutrophication and contaminant concentrations have remained prominent, although specific concerns have changed. Monitoring initially focused on determining the occurrence of synthetic organic compounds in the water column and bed sediments; later monitoring and interpretive efforts focused on nutrient and sediment loads and trends. Issues such as the occurrence of disinfection by-products, microbial pathogens, and pharmaceutical and personal care products have also been addressed by earlier phases of TAWSMP. The Project also sponsors the maintenance of stream gauges at critical points along the Flat, Little and Eno Rivers, among others.

To date, six different interlocal agreements have been executed; each with a monitoring period of five years. The participating jurisdictions have varied during the timeframe.

Issues/Analysis

The Project is now entering Phase VII; in addition to Durham, supporting partners include Chatham and Orange Counties, the Towns of Apex, Cary, and Hillsborough, the City of Durham, and the Orange Water and Sewer Authority (for the Towns of Carrboro and Chapel Hill). The Town of Cary will assume the cost share and responsibilities of the Town of Morrisville. Phase VII of the project is effective July 1, 2012 through June 30, 2017.

Phase VII of the Monitoring Project will continue fixed-interval water quality monitoring and data collection at existing tributary sites during high-flow events and will maintain several stream flow gauges. Phase VII will conduct additional monitoring and data analysis to ascertain the occurrence and distribution of algal toxins and taste and odor compounds at drinking-water intake sites in the Project study area and prepare an interpretive report on the findings. Finally, Phase VII will support the USGS application for DWQ certification for selected field parameters and laboratory analysis, including nitrogen and phosphorus fractions, chlorophyll *a*, and selected metals and trace elements.

The City of Raleigh and the South Granville Water and Sewer Authority withdrew from Phase VII, which led to a cost increase for the remaining participating partners. However, the remaining partners have committed to sponsoring the project due to the value of the water quality data collected and analyzed. Durham believes it is important to continue to support the project and evaluate on-going participation each year as other water quality projects that may be more relevant to the specific concerns of the Falls Lake and Jordan Lake rules may be developed.

Alternatives

One alternative is to withdraw Durham's participation from the TAWSMP. This would result in losing the benefit of the monitoring results. This data will be helpful in evaluating Durham's concerns related to the Falls Lake and Jordan Lake rules.

Financial Impacts

Although the length of the project is five years, funding is determined on an annual basis, with jurisdictions allowed to opt out of project if written notice is provided to the steering committee

on or before March 1st of each year. The annual cost for Phase VII of the TAWSMP is \$564,000. The USGS provides a forty-five percent cost share which equals to \$254,000. The Project partners' total annual cost for Phase VII is the remaining \$310,000, plus \$20,000 to TJCOG for management services and support. The City of Durham's annual cost for Phase VII is \$121,446. Funds were budgeted for fiscal year 2012-2103 in 5100P000-728600. The annual funding support provided by the TAWSMP Partners will continue through 2017, yet will be considered annually by the City.

SDBE Summary

The Ordinance to Promote Equal Opportunity in City Contracting does not apply to this item.